SciShield Guide for Lab Users and Pls

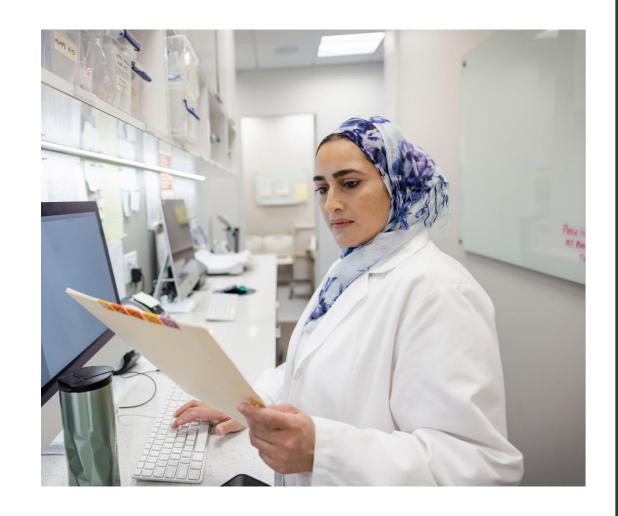
UVM Environmental Health and Safety Department





Environmental Health and Safety At the UVM, SciShield is the centralized online platform used for managing laboratory safety, compliance, and operations. It was adopted in February 2023 to replace older systems and streamline lab oversight. Here's a breakdown of its key features and functions:

- 1. Lab registration and set up
- 2. Personnel and emergency information
- 3. Chemical inventory via ChemTracker
- 4. Self inspections and internal audits
- 5. Online training and training records
- 6. Equipment tracking (optional)



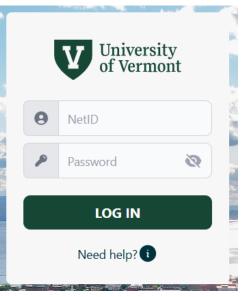
SciShield Definitions

Term	Definition	
Laboratory	Refers to a group working under a Principal Investigator (PI) or other faculty member. SciShield uses the last name of the PI to indicate the name of a lab group.	
Space	Refers to the rooms and areas used by the lab group. For example, tissue culture room, or bench 1.	
Laboratory Members	Anyone who does any work in any of a lab's spaces under the PI. This includes faculty, staff, visiting researchers, and students.	
Door Sign	SciShield generates both a digital and physical door signs for each lab space which are required to be displayed.	
Unique Container ID	This is an auto-generated ID number given to each chemical container.	



Go to https://uvm.scishield.com/ and log in with your UVM NetID



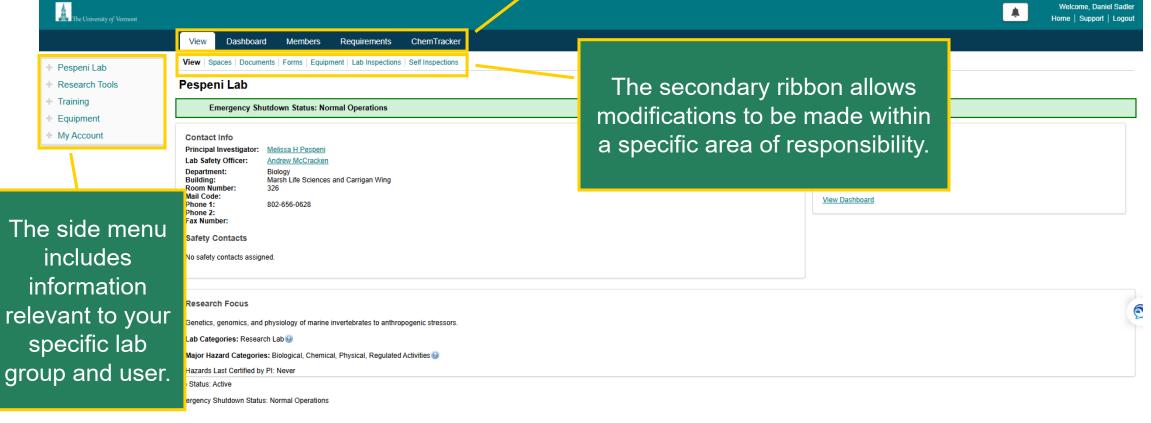


Scishield can be accessed from any device (including your phone or tablet)

Non-UVM staff can also access SciShield but will first need to contact EHS to set up an account.



The primary ribbon corresponds to major areas of responsibility within the lab.





Keeping SciShield up to date is essential for maintaining safety, compliance, and effective communication.

An up-to-date chemical inventory, member roster, and hazard list, ensures that the correct safety processes are in place, that the lab's training records can all be accessed and checked, and helps with communication, should EHS ever have to contact the lab group. Maintaining this information helps streamline safety oversight and supports a well-organized, responsive lab environment.



Online Lab Registration

When you first log onto Scishield, you will be prompted to setup your lab using the general setup wizard. If you do not see a link to the wizard, EHS has not yet added your lab onto SciShield. Contact safety@uvm.edu or your lab safety coordinator to have your lab group added.

Setup Steps

The following item(s) require your attention. If you have any trouble or need help, please Contact Us.

Test Lab Setup-

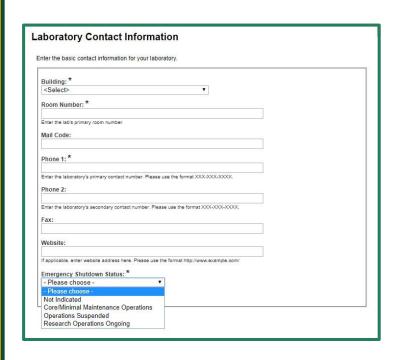
General Setup Wizard Not Complete!

Skip Setup



Set up your lab, following the instructions in the wizard. Input contact information, research focus and a hazard assessment etc.

The information inputted at this stage can be changed at a later date if you work changes.



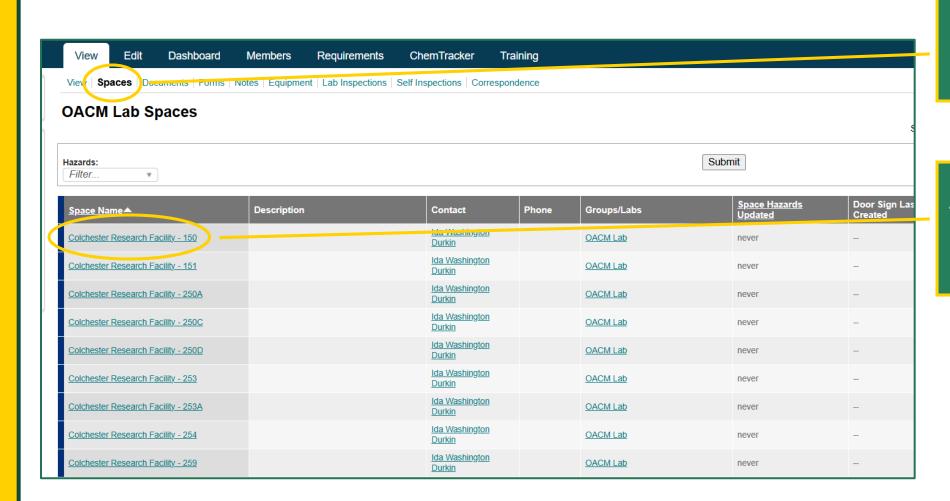


For each category below, please select the hazards to which lab personnel may be exposed and activities they will perfor regardless of the location in which they are working.					
	mpleting this wizard, you will have the ability to change your lab's hazards at any time. If you have questions about azards apply to your lab, please complete this form and then contact EHS with any questions you have.				
Biologic	cal:				
	Animal blood, body fluids, and/or tissues @				
	Animal inhalation anesthetics 🕢				
	Biological materials 😡				
	Human blood, body fluids, tissues, and/or bloodborne pathogens 🕢				
	Infectious proteins				
	Live animals				
	Plant research				
	Recombinant and/or synthetic nucleic acids 🚇				
	Select Agent pathogenic microorganisms (a)				
Chemic	al:				
	Any hazardous chemicals @				
	Carcinogens 🚱				
	Corrosive liquids (a)				
	Engineered nanomaterials 🥝				
	Environmental hazards 🚇				
	Flammable chemicals (g)				
	Generates hazardous waste 🕖				
	Hazardous compressed gases 🚇				
	Hazardous drugs 😡				
	Highly toxic chemicals (a)				
	Irritants 🚱				

Points to Remember

- All spaces under your purview should be listed in SciShield. If you are unsure which lab spaces to associate with your lab group, or one of your spaces is not already on SciShield, please contact safety@uvm.edu.
- Identify all individuals who work in the lab using their <u>UVM NetID</u>.
- Add emergency cell phone numbers for the PI and the Lab Safey Officer since emergencies can happen out of hours, make sure this not an office phone number.
- We recommend taking the time to fill out even optional information (such as research focus and equipment) as this can be useful to EHS staff and emergency responders.





Spaces can be accessed from the secondary ribbon under "View"

Access an individual space by selecting the space name

Each space requires a SciShield door sign, which can be created from the space's page

View | Documents | Notes | Equipment | Inspections | Self Inspections | Door Sign

Colchester Research Facility - 150

Contact:

Ida Washington Durkin

Contact Phone Number: Labs/Groups using space:

OACM Lab

Location

Building Name: Colchester Research Facility

Room Number: 15

Address: 360 South Park Dr.

Colchester, Vermont 05446

United States

Biosafety Level:

Unknown

Animal Biosafety Level:

Unknown

Plant Biosafety Level:

Click here to input the required information for your digital and physical door sign

Colchester Research Facility - 150

Location

Building Name: Colchester Research Facility
Address: 360 South Park Dr.

Colchester, Vermont 05446

United States

General Information

Г		Contact Name	Primary Phone
	1	-	-
	2	-	-
	3		

Room Number:

150

Description:

Labs/Groups using space: OACM Lab

Space Hazards

Space Hazards has not been configured yet. Please select "Edit Digital Door Sign" below to make changes.

-704 Diamond

The 704 Diamond has not been configured yet. Please select "Edit Digital Door Sign" below to make changes.

- PPE/Precautions

PPE/Precautions has not been configured yet. Please select "Edit Digital Door Sign" below to make changes.

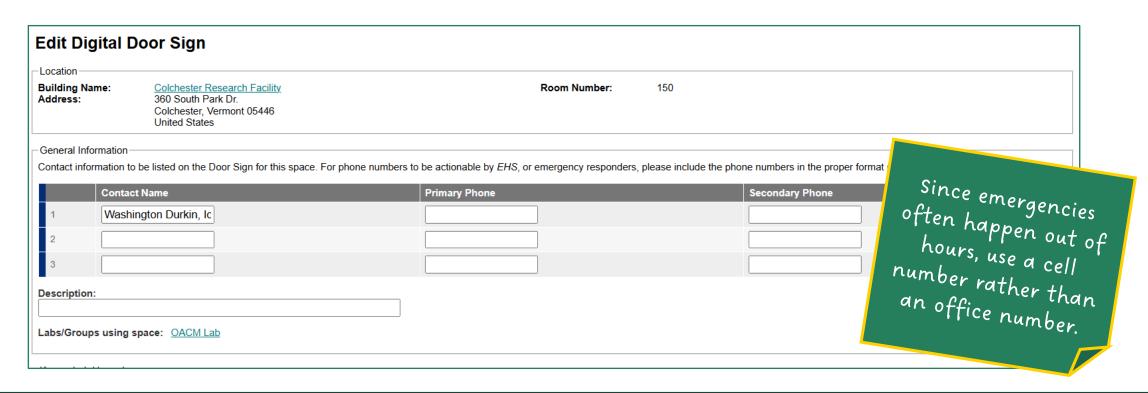
Entrance Procedures/Facilities Instructions

Entrance Procedures/Facilities Instructions has not been configured yet. Please select "Edit Digital Door Sign" below to make changes.

Edit Digital Door Sign

On the edit page you can input the contact information for up to three individuals. These should be workers that have had all the mandatory trainings AND know the hazards and protocols of the lab.

- In shared spaces include the PIs in these main contact slots. If more PIs exist than three put remaining contacts and numbers in the notes section at the bottom of this screen.
- If the lab has only one Lab Supervisor/PI, also include the information for the Lab Safety Officer.
- Labs must have at least two contacts on their signs.



Known lab hazards will automatically generate based on the information you provided in the set-up wizard. Click "Populate" to pull this information onto the door sign.

Specific space hazards can be added or altered after populating the lab hazards.

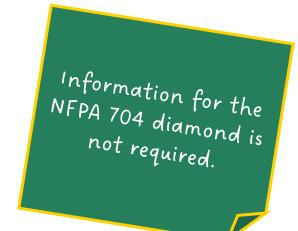
Known Lab Hazards

Below are the hazards to which lab personnel within this space may be exposed based on the information collected from Lab Profiler:

OACM Lab

- Biological
 - · Animal blood, body fluids, and/or tissues
 - · Non-primate blood, body fluids, and/or tissues
 - · Animal inhalation anesthetics
 - · Biological materials
 - · Biological materials Biosafety Level 1
 - Biological materials Biosafety Level 2
 - · Live animals
 - · Live animals Animal Biosafety Level 1
 - · Live animals Animal Biosafety Level 2
 - · Live animals treated with chemical hazards
 - · Live vertebrates
- Chemical
 - · Any hazardous chemicals
 - · Corrosive liquids
 - · Flammable chemicals
 - Generates hazardous waste
 - · Hazardous compressed gases
 - Oxidizing compressed gases
 - Hazardous drugs
 - Irritants
 - Regulated chemicals
 - · Drug Enforcement Agency controlled or regulated substances
- Physical
 - · Heavy material handling equipment
 - · High heat
 - · Highly repetitive lab work
 - Inert compressed gases
 - Noise nazards
 - · Particulates from machines and operations
 - · Pressure and vacuum vessels

To automatically copy these lab hazards to the Colchester Research Facility - 150 Digital Door Sign, click the "Populate" button.



Populate

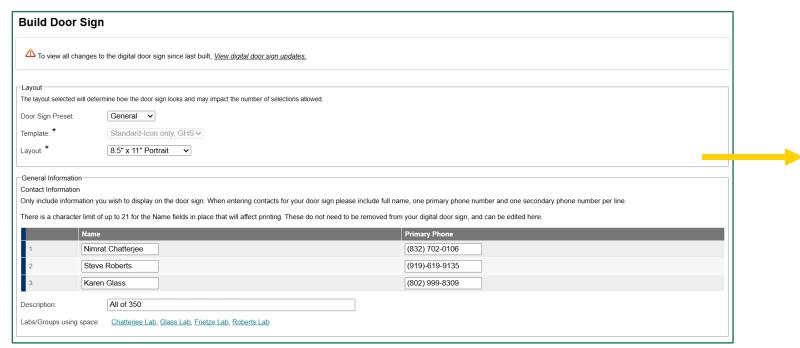
You can then add required PPE and other instructions e.g. required training to finish creating your digital door sign

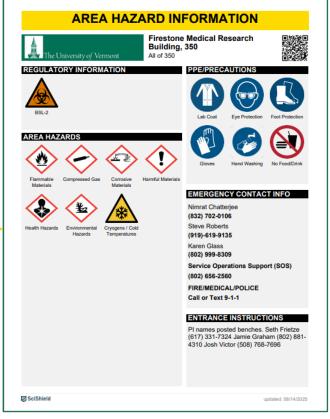
Personal Protective Equipment/Precautio	ns —					
☐ Lab Coat	☐ FR Lab Coat	☐ Hearing Protection	☐ Eye Protection			
☐ Safety Glasses	☐ Safety Goggles	☐ Foot Protection	☐ Closed Toe Shoes			
☐ Steel Toe Shoes	Gloves	☐ Protective Clothing	☐ Hand Washing			
☐ Face Shield	☐ Hard Hat	☐ High Visibility Clothing	☐ Wear a Mask			
□ N95 Mask	☐ Surgical Mask	☐ Dust Mask	Respiratory Protection			
☐ Welding Mask	☐ Anti-static Shoes	☐ Use Breathing Apparatus	□ PAPR			
SCBA	☐ Stay Clear	☐ No Smoking	☐ No Open Flame			
☐ No Pacemaker	☐ No Metallic Articles	☐ Confined Space	☐ No Cell Phone			
☐ No Metallic Implants	☐ No Food/Drink	☐ No Photography				
Entrance Procedures/Facility Instructions						
Submit						

It is a requirement to also have a physical door sign on all doors into the lab space. You can print your door sign straight from SciShield by clicking here after updating your digital door sign.

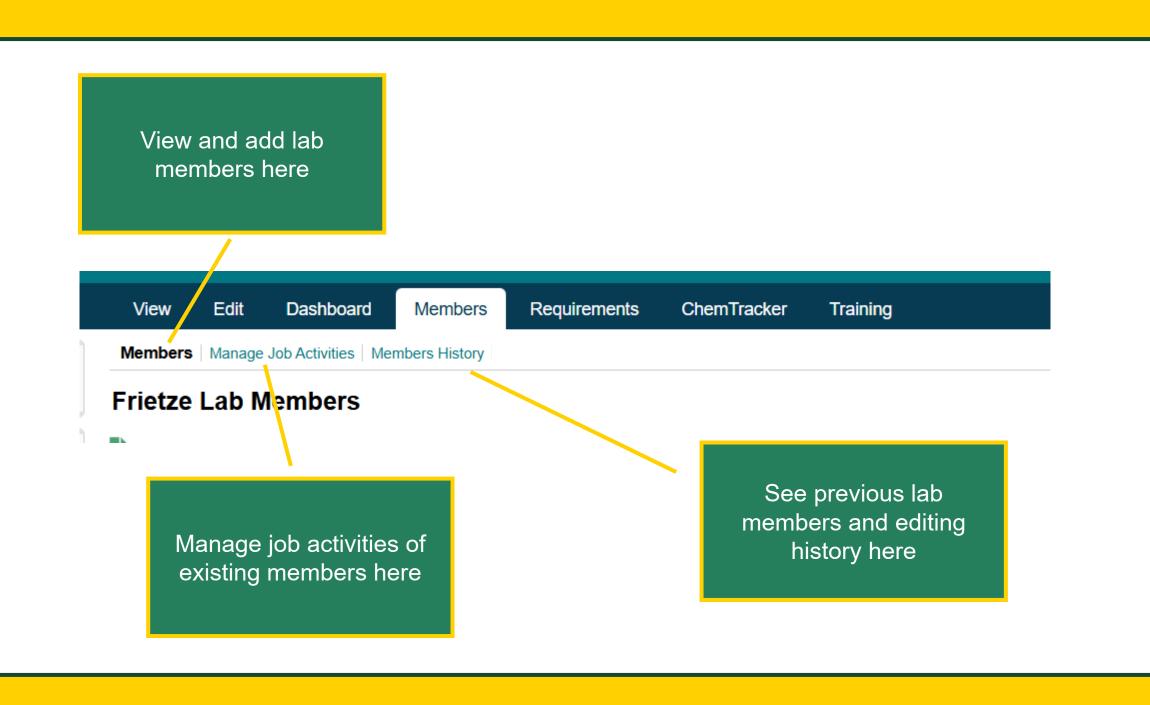
- The Digital Door Sign has been updated.
- If you would like to print your door sign, please click here.

Information is automatically populated, and can be edited if required.









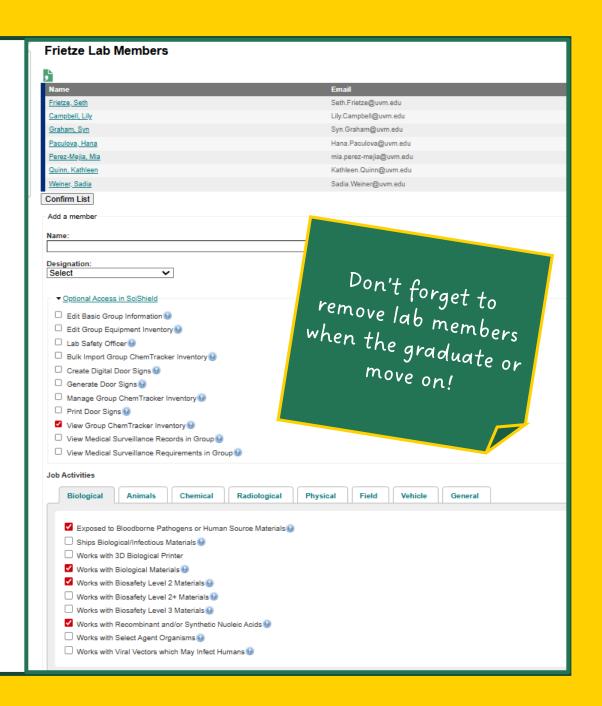
Adding new members

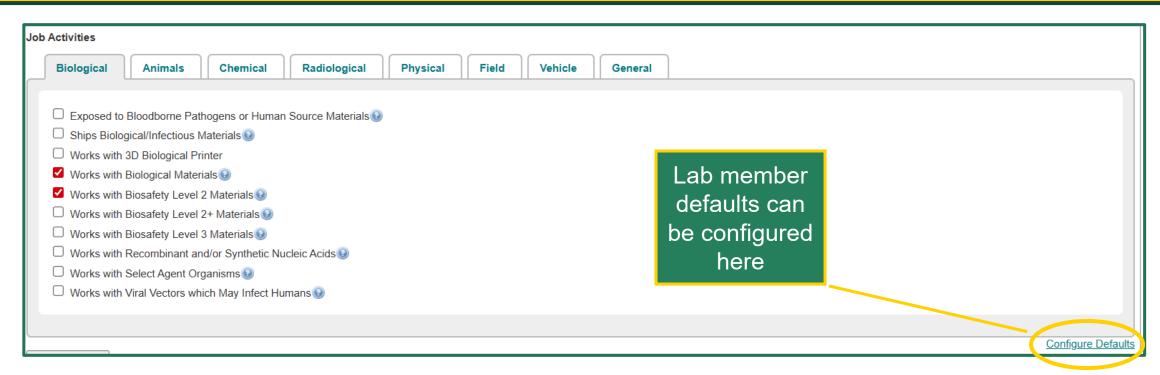
Who will be working in your lab?

This includes:

- Undergraduates working part time in the lab
 - A graduate student on rotation
 - Summer students and interns

The list should not include individuals who only occasionally use equipment or reagents in your lab space, who are under another PI.





Remember to include all relevant job activities, as this will trigger training requirements.

Note: as lab member knowledge, skills, and responsibilities increase, you can easily modify their job activities to reflect their change in responsibilities.



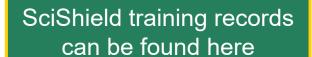
Training Requirements

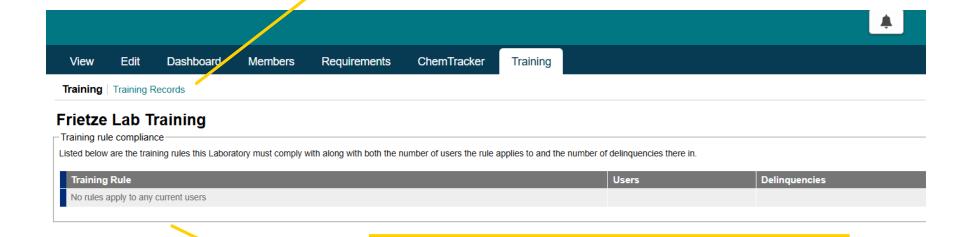
Training requirements vary between labs depending on what job activities are being performed. You can find out which training is required for your lab group and members here.

Online training is not a substitution for the hands-on training that lab users receive but is important to ensure safety and

compliance when working in the laboratory.

Some training is one off, but other trainings need to be repeated after a period of time. Make sure you know which trainings have to be refreshed, and how often.





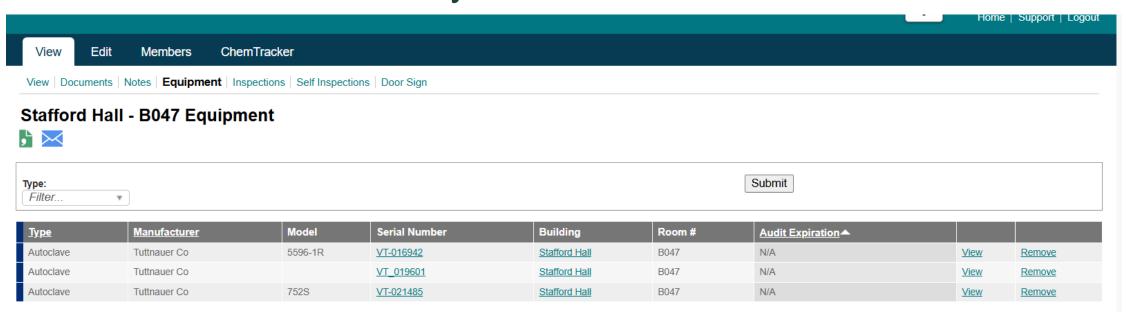
Required training is set by EHS. This is currently under review, and does not include trainings from outside of SciShield.

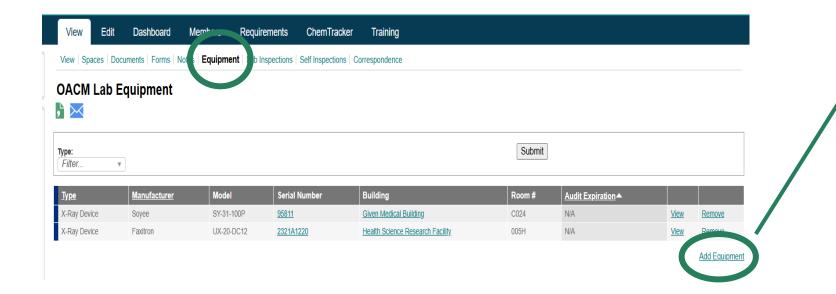


Equipment Requirements

Whilst it is not a requirement to list equipment on SciShield, you may find it beneficial in order to track inventory, certifications, or even user manuals.

Listing equipment on SciShield also makes it easier for the EHS team to access should they need.





If you wish to add equipment to your lab group, or to a specific space, you can do so by clicking the "Equipment" button in the secondary ribbon on your SciShield page.

Clicking "Add Equipment" will open a list of equipment for you to choose from.

Add Equipment

Please select the type of equipment you would like to add:

Add Biosafety Cabinet

Add High Speed Cell Sorter/Analyzer

Add Emergency Response Kit

Add Eyewash/Shower

Add Film Developer

Add Gamma Counter

Add Gas Cabinet

Add Hood

Add Laser

Add Local Exhaust/Workstation

Add Scintillation Counter

Add 3D Printer

Add Automated External Defibrillator

Add Autoclave

Add Centrifuge

Add Freezer

Add Geiger Counter

Add Incubator

Add Portable Monitor

Add Powered Industrial Vehicle

Add Refrigerator

Add Sealed Source

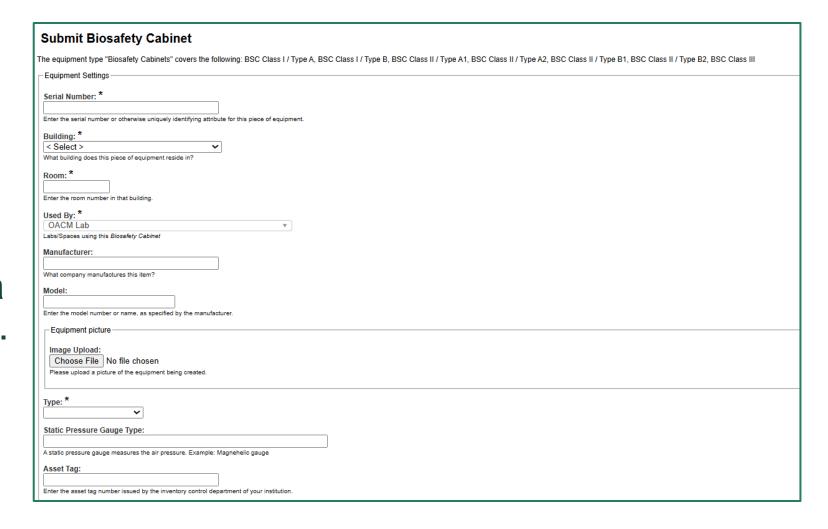
Add Survey Meter

Add Environmental Monitoring System

Add High Powered Magnet

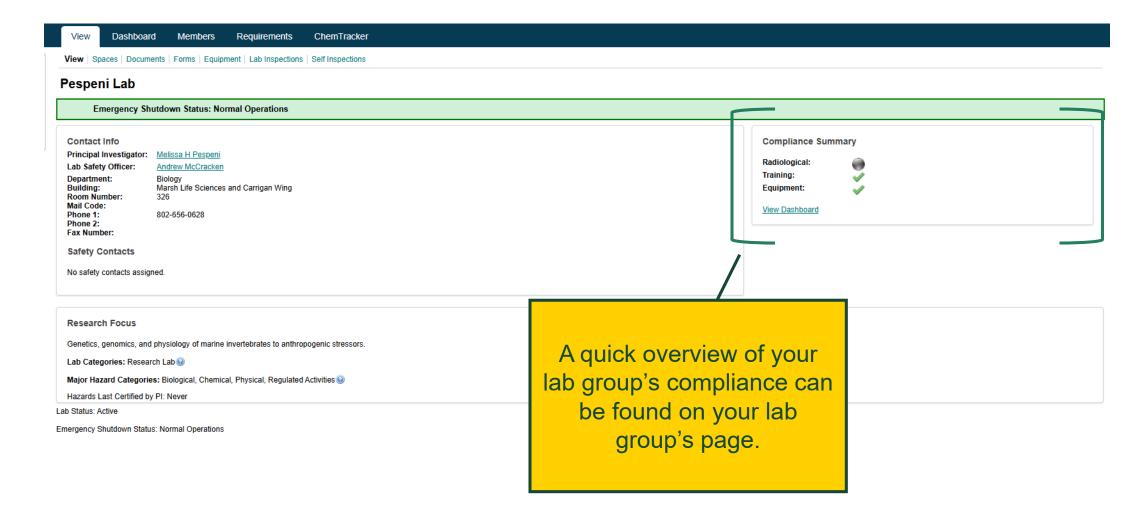
Add X-Ray Device

Input the required information on the following page. This can be changed at a later date if required.



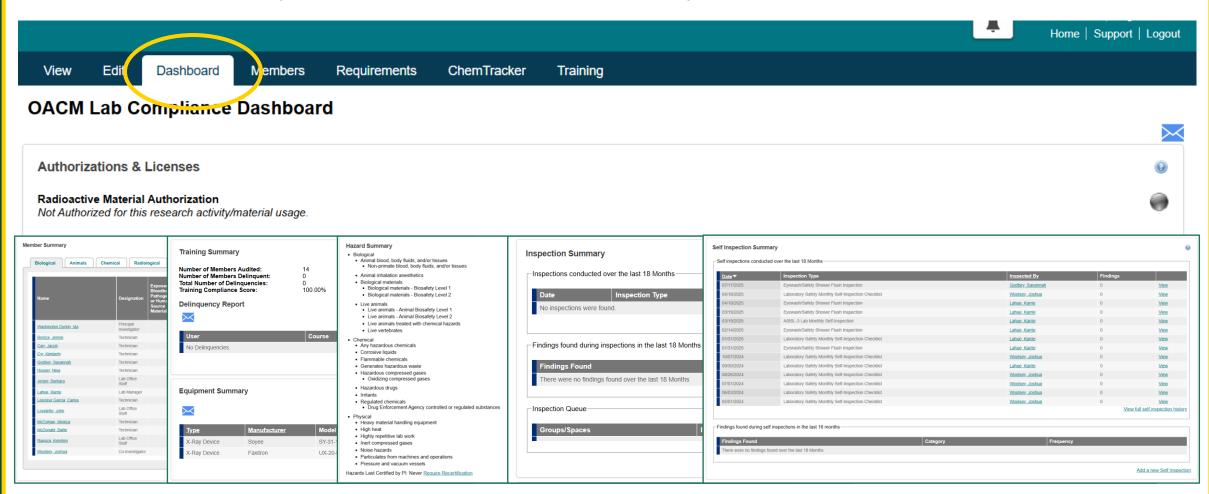


Compliance



Compliance

A more detailed look at your lab's compliance can be found in your lab's dashboard.



Chemical Inventory











ChemTracker

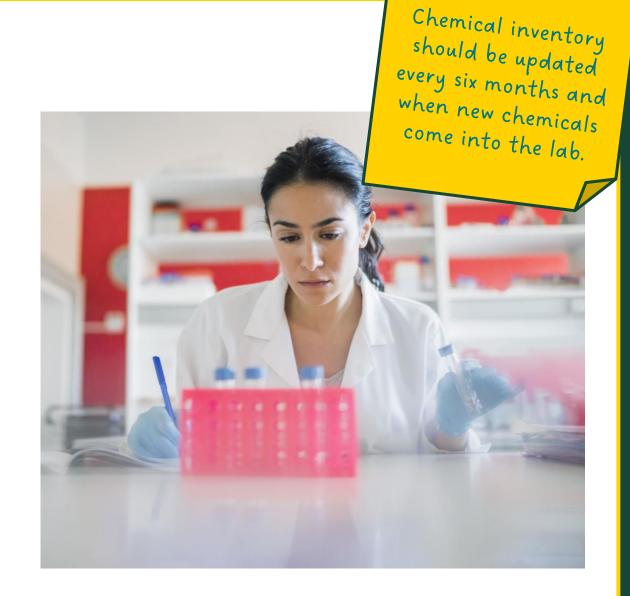
ChemTracker is a web-based software program within Scishield that tracks chemical containers and links them to important safety and regulatory information. UVM utilizes ChemTracker to make real-time chemical inventories available to laboratory members, safety staff, and emergency responders.

Use ChemTracker to keep track of your chemicals, borrow chemicals from other lab groups, and lookup important safety information on SDSs. ChemTracker also helps reduce overstocking and overbuying of chemicals across campus.



Periodic Review

- Periodic review of your chemicals in storage and routine updates to your lab chemical inventory will help to minimize the quantity of chemicals in storage and eliminate duplicate orders.
- In the inventory, include a location for each chemical in storage and train lab workers to check the inventory before re-ordering chemicals.
- Be sure to also update your online chemical inventory so that emergency responders know what to expect if they need to respond to an emergency in your lab areas.



Adding Inventory

There are several ways to add new inventory to your ChemTracker. They are:



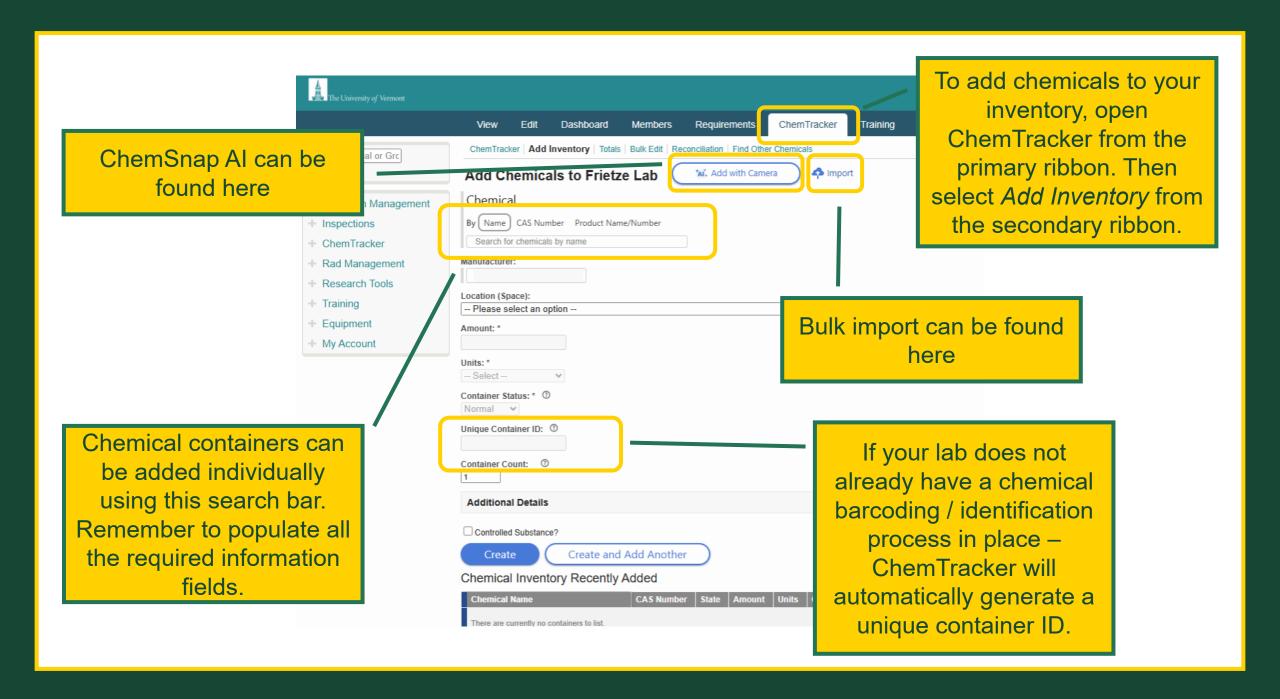
Individually searching the chemical by name, CAS number, or product name / number.



Bulk importing chemicals using the excel template

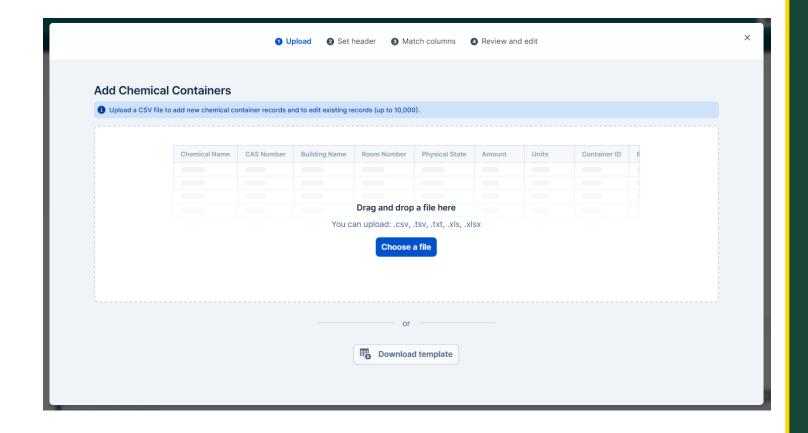


Using your camera to take a photo of the chemical container and uploading via ChemSnap Al

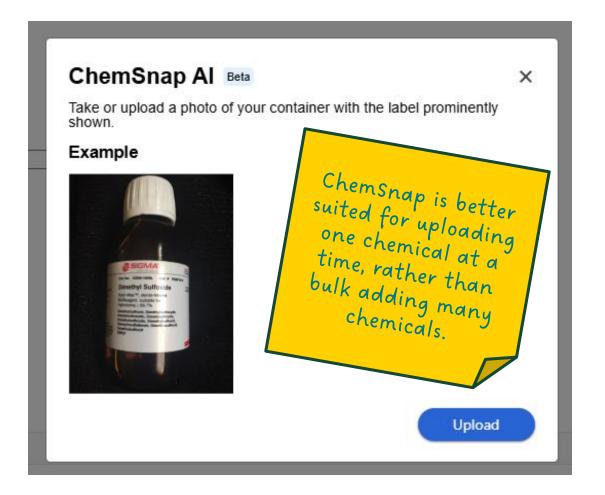


Bulk Import

To bulk import chemical inventory – select *Import* and download the template sheet. Populate this with your chemical inventory and upload into ChemTracker.



ChemSnap Al



To upload using ChemSnap AI, select *Add with Camera*, and either take a photo with your phone or iPad, or upload an existing photo of the manufacturers' chemical container.

Sharing Chemicals

You may choose to share your chemical inventory with other lab groups within your building via *Find Other Chemicals*. Visibility of your inventory to others is determined by the container status assigned to each individual chemical container.

All containers are viewable by the EHS team members for regulatory reporting, overall inventory management, etc.

Always ask
permission before
taking chemicals
from another lab
group!



Containers marked as "Hidden" will not show on group-to-group chemical sharing tools.



Containers marked as "Normal" (default status) will show in group-to-group chemical sharing tools.



Containers marked as "Surplus" will be indicated as available for other groups to take.

Bulk Editing Chemicals

The bulk edit function is valuable for editing or deleting many records at one time. Click *Bulk Edit* from your lab's ChemTracker menu, then enter the relevant search parameters and select the containers you would like to edit.

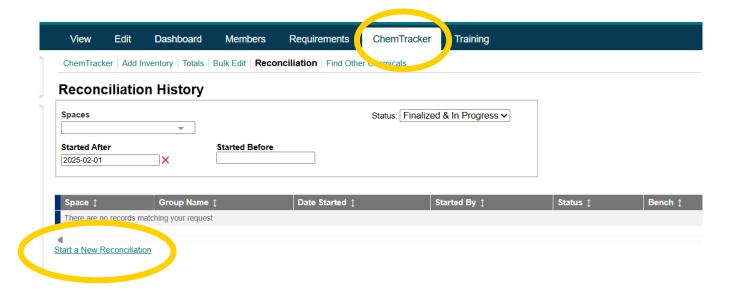
Any changes made will be applied to all the containers and overwrite existing data.

These changes cannot be bulk undone.

	View Edit Dashboard Hombers Requirement	ts ChemTracker Training							
	ChemTracker Add Inventory Tota Bulk Edit								
	Select Chemical Containers								
This page enables editing or deleting of many chemical containers at once. Use the filters below to find the containers you would like to change. Once you have selected the desired containers, click "Edit selected container" at the botton of the page. From there, changes to all the selected containers may be made.									
	- Filters								
	Chemical Name:	CAS Number:	Chemical Hazards: Select Hazard(s) *						
	Chemical Synonym:	Database Linkage Status: 🕟	Location (Space): - Select Location(s) *						
	Chemical Owner: - Select Owner(s) -	Physical State: — Select State(s) — *	Bench:						
	Shelf:	Notes:	Last Changed After:						
Last Changed Before:		Container IDs (up to 1000): Submit							
		Comma-delimited list of Container IDs							

Chemical Reconciliation

Use the *Reconciliation* tool in ChemTracker to update your SciShield inventory so that it matches the physical inventory in your lab. This needs doing at least every six months.



Things to Remember

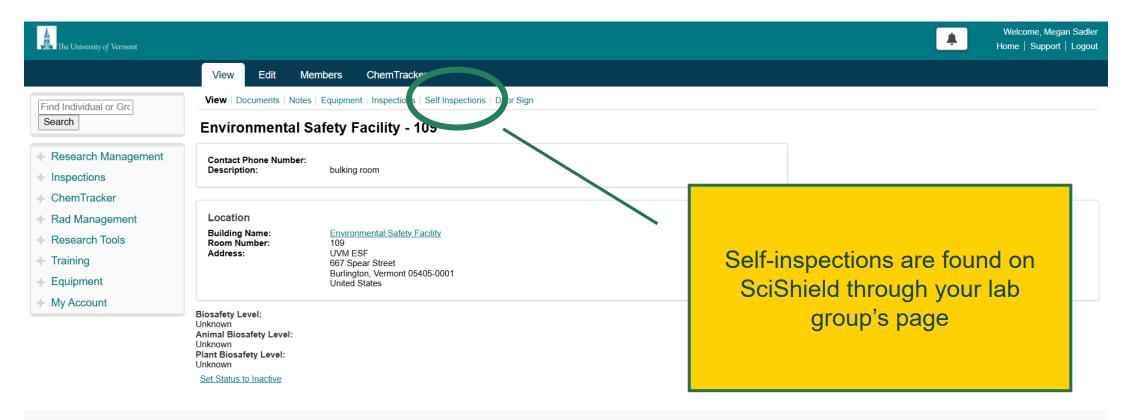
- All chemicals, not just hazardous ones, need to be logged on ChemTracker.
- All members of the lab group can see the chemical inventory as a default, but only users with the *Manage Group ChemTracker Inventory* access can make changes.
- If you need assistance with your chemical inventory, contact the EHS team.



Properly conducted, lab self-inspections assure that safe working conditions are maintained, and that regulatory compliance is achieved. Lab personnel are expected to look critically at all their lab spaces each month and document findings on the Self-Inspection Checklist.

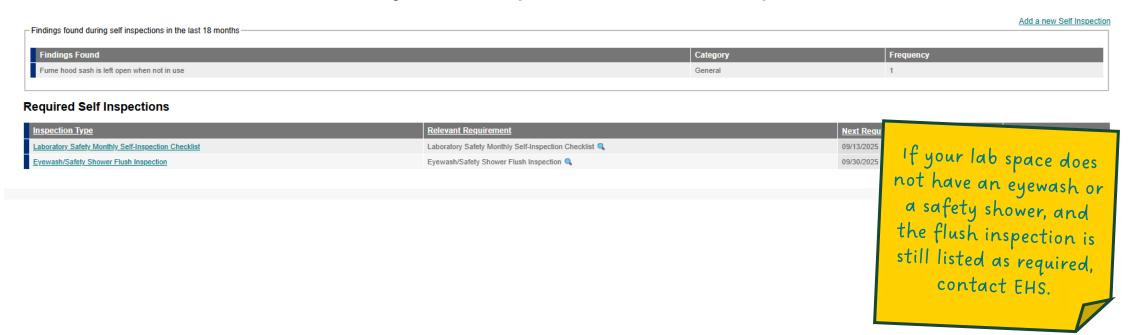
Specific labs may have issues that are not addressed by this checklist. Those lab personnel should work with EHS staff to modify this checklist to best fit their specific safety and compliance needs.

If your lab will be temporarily closed for any reason (e.g. field work, sabbatical, etc.), contact your Lab Safety
Coordinator to arrange for temporary reduction in inspection requirements. It is very likely that a pared down inspection will be necessary to ensure the lab will be ready for use upon your return.

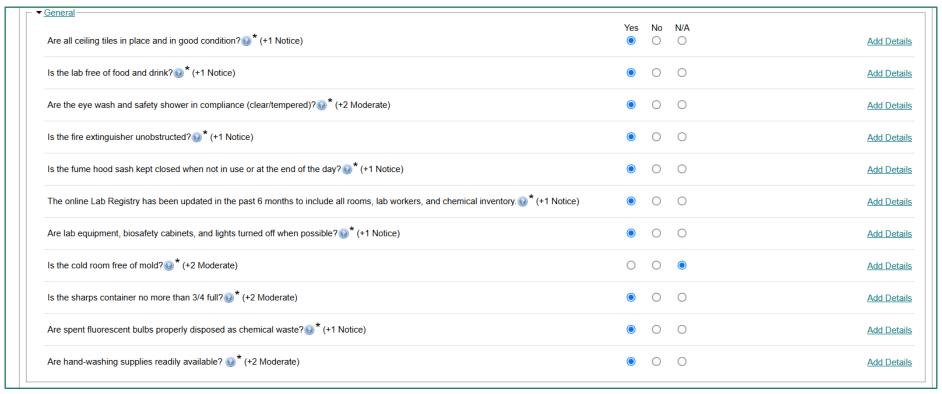




At the time of creating this guide, there are two monthly self-inspections, the Laboratory Safety Monthly Self-Inspection Checklist and Eyewash/Safety Shower Flush Inspection. This may change in the upcoming year, so keep an eye out for announcements from the EHS department. It is important that **both** monthly self inspections are completed.



Go through the checklist and answer the provided questions. If there is any issue with an item from the checklist, please make note of it in the "NOTES" portion of the form. It is important to include the resolution to ensure that the problem has been rectified.



Lab Safety Audits

EHS conduct lab safety and chemical waste audits of the labs. These audits:

- Provide feedback to lab personnel regarding their health, safety, and compliance efforts
- Remedy lab environments that need improvement
- Inform the UVM administration regarding potential risks

Audits will be conducted following a risk-based schedule. The priority level of a lab is assigned by EHS personnel and is determined using the following guidelines:

Lab Safety Audits

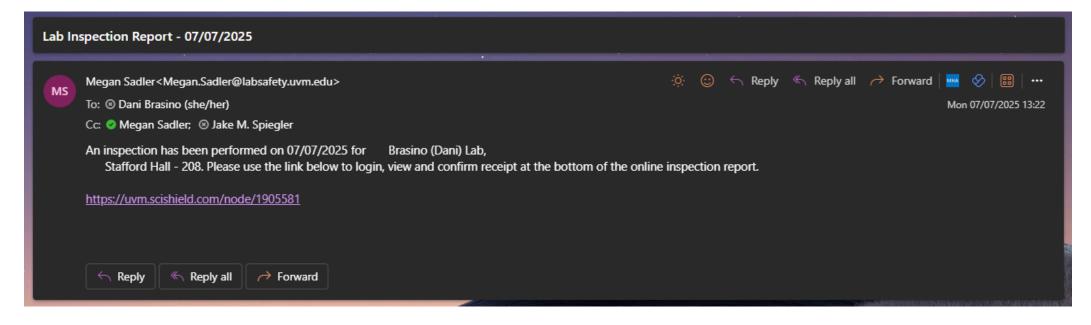
High Priority labs are audited once each calendar year.

- High hazard activities are conducted, or high hazard materials are used (such as pyrophoric or highly toxic chemicals) in the professional judgment of EHS
- The lab has been identified by an external entity (e.g. Vermont DEC, BFD) as areas that show a risk of non-compliance
- An incident has already occurred that shows a lack of preparedness, training, or conformance; or
- Labs with poor past performance

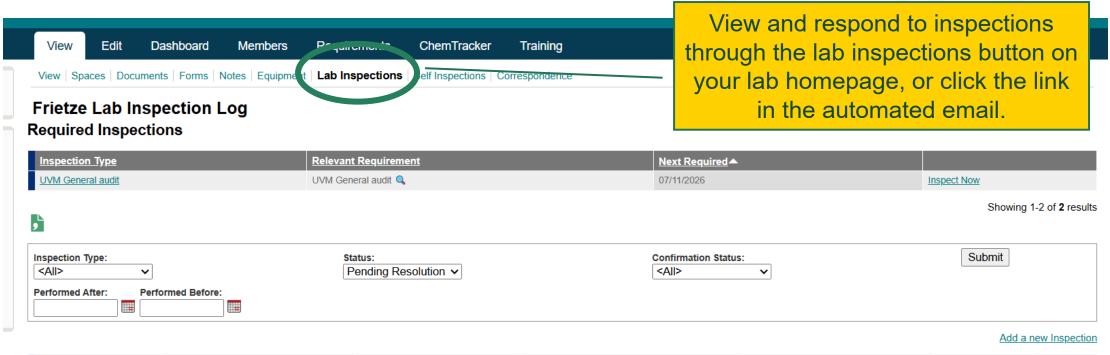
Low Priority labs are audited at least once in every 3 years.

- Relatively low hazard materials and operations are used; and
- The lab has a history of positive conformance with safety, health, and environmental requirements.
- Any lab that is conscientiously conducting self-inspections should have minimal corrective actions identified during a safety audit.

Lab Safety Audits



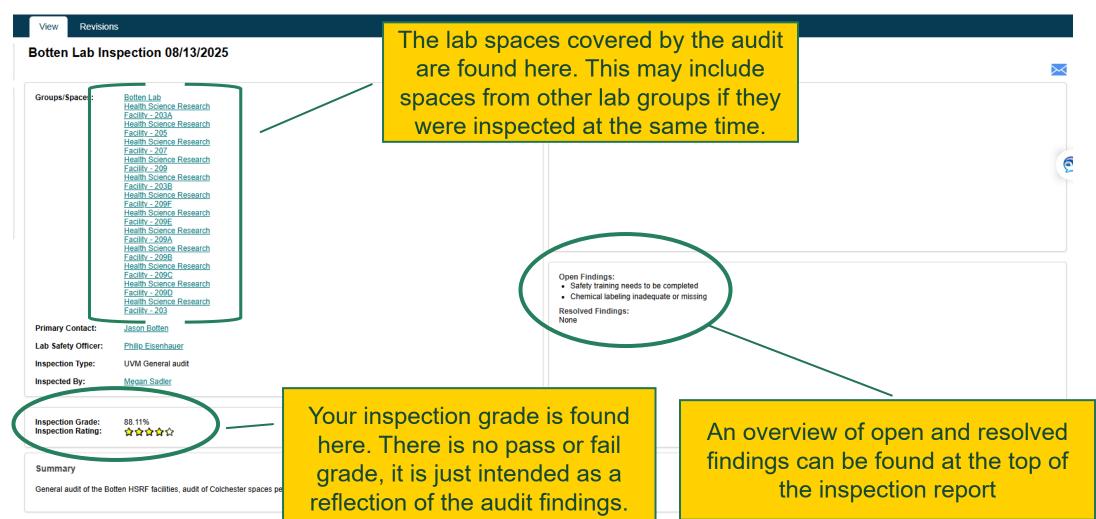
Pls and LSOs will receive an automated email once an audit has been completed. Make sure to confirm receipt of the report by clicking the link in the email.



<u>Date</u> ▼	Inspection Type	Inspected By	Resolved Findings	<u>Status</u>	Rating	
07/03/2025	Lab Waste Audit	Sadler, Megan	7 / 10	Pending Resolution	2/5	<u>View</u>
07/11/2023	UVM General audit	Brooks, Michelle	7/7	Finalized	3/5	<u>View</u>

Add a new Inspection

Click here to view a specific audit



Findings are listed here, and include a corrective action

Findings

1. Safety training needs to be completed

Comments/Corrective Action(s):

Please see attached spreadsheet for training requirements.

All online trainings must be completed before starting work in the lab. All classroom trainings must be completed within three months of starting work in the lab. All lab-specific trainings must be completed as appropriate.

Regulatory Citation: OSHA; 29 CFR 1910.1200, 1450 (?)

Corrective Action: Complete required safety trainings

2. Chemical labeling inadequate or missing

Comments/Corrective Action(s):

Not all chemicals had received / opened dates. Since this cannot be back dated, if the action could just be implemented going forward for future chemicals

Chemical labeling must be visible, intact, and legible on all containers. Hazard communication requires the complete chemical name (no abbreviations) and any other pertinent hazard warning information.

Regulatory Citation: 29 CFR 1910.1200, 1450

Corrective Action: Replace any missing, faded/illegible, or incomplete chemical labels

Additional remarks may be listed here

Remarks

The following remarks have been recorded for the finding(s) below.

1. Chemical inventory needs to be updated

Comments/Corrective Action(s):

For the next inventory update, if the chemical reconciliation feature in ChemTracker could be used, that would create a document trail for the safety team to check

Any additional comments or attachments can be found

here

Additional Information

Other Comments/Corrective Actions:

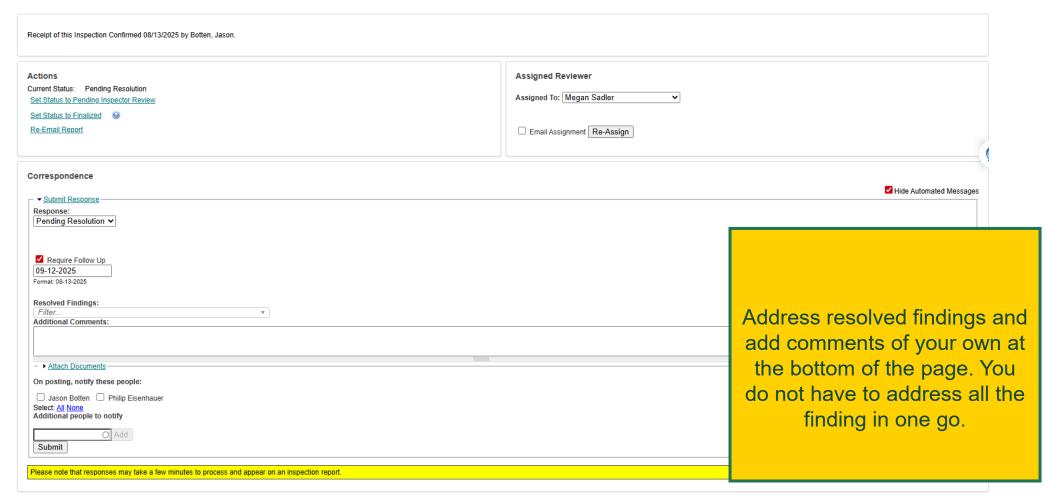
Couple of very minor findings, great work overall.

I've asked our waste team about the rusted hinges on the biowaste boxes and they recommend washing out the rust with soap and water then use either alcohol or lysol as a disinfectant. If issues persist, perhaps another brand of lid would be appropriate.

Other Attachments

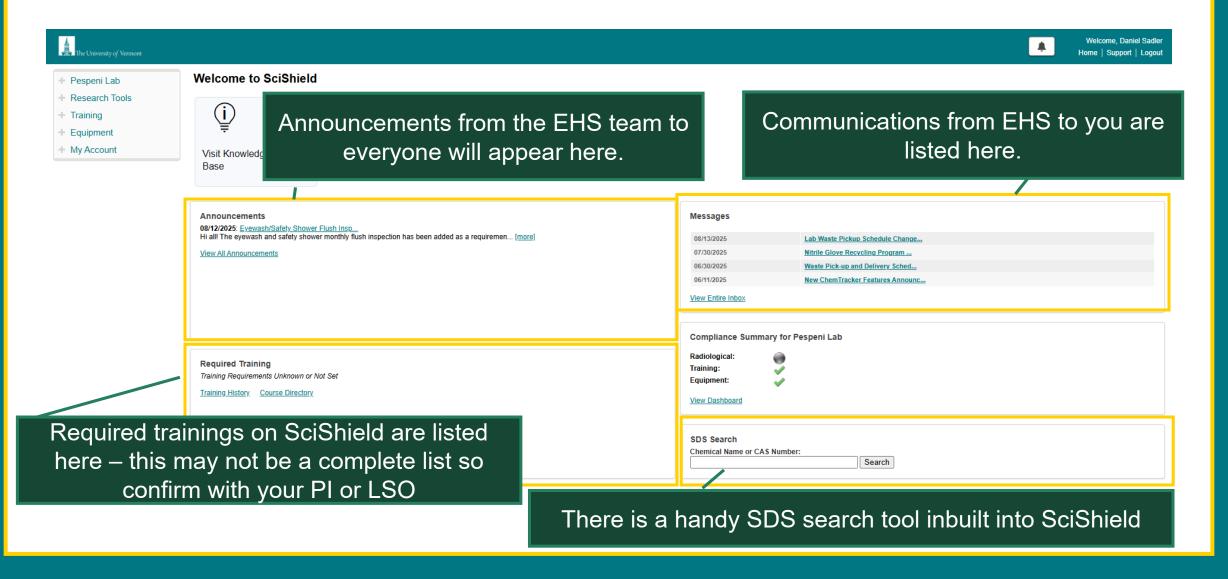
These files are uploaded materials. For accessibility concerns, please contact EHS

Training records BOTTEN 1755098814 147414.xlsx





When you open SciShield, your homepage will look something like this.



The headings at the side of the screen can be expanded to show more information.

Useful information for research safety can be found here.

Equipment may or may not be listed for your lab group, as it is an optional feature at UVM.

Pespeni Lab

» View Lab Profile

» ChemTracker

» Compliance Dashboard

» View Members

» Send Lab Message

» View Lab Spaces

» Self Inspections

» Manage Lab Forms

Research Tools

» Announcements

» External Links

» SDS Search

Training

» My Training

» Course Directory

Equipment

» My Equipment

My Account

» My Profile

» Pespeni Lab

» Messaging

» Log out

Information on your lab group(s) can be found here.

Your completed training, training requirements, and a directory of all training courses can be found here.

Your account details are found at the bottom of the list.



Online training is not a substitution for the inperson training you will receive as part of your onboarding but is an important part of safety and compliance.

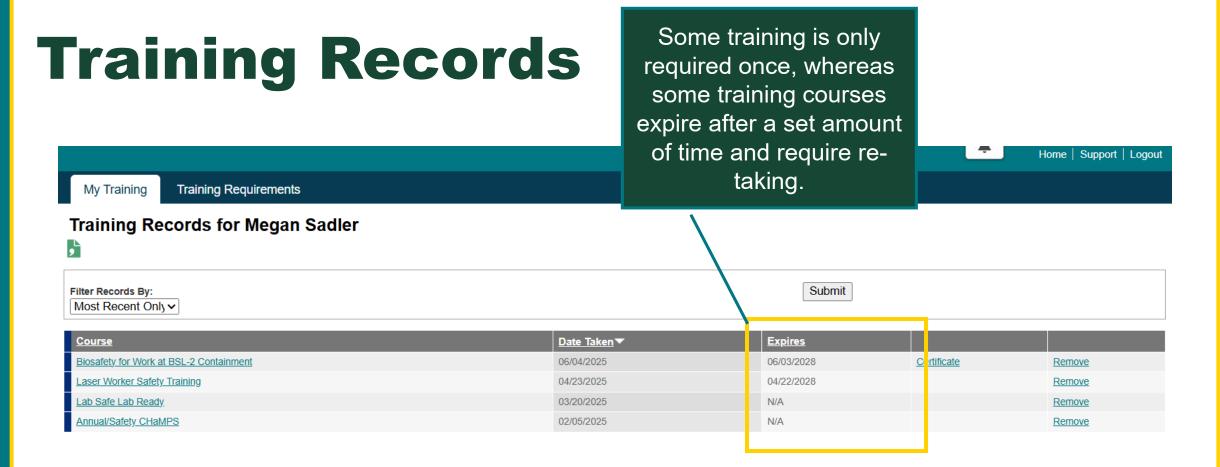
Required trainings are in other places, not just on Scishield. Check here to see the training requirements for your lab.

If a course says "Launch Course" - it can be completed online. Classroom training is booked through Scishield by clicking "Sign up"

Course Directory

Course Name	
Annual/Safety CHaMPS	Launch Course
Laser Worker Safety Training	Launch Course
Biosafety for Work at BSL-2 Containment	<u>Sign up</u>
Lab Safe Lab Ready	<u>Sign up</u>
Radiation X-ray Device	<u>Sign up</u>
Radioactive Material User Certification	<u>Sign up</u>

All available courses can be found in the course directory. All lab members are required to do at least the annual safety training, Lab Safe Lab Ready, and SafetyCHaMPS.



Training records are accessed through SciShield, but your PI or LSO should also have a complete copy either digitally or in the lab safety notebook.

Still got questions?

Visit our SciShield FAQ

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